

wearing constantly a few twigs contained in a small bag or basket slung to the wrist, in the assurance that so good fortune will follow. But few other than chiefs are fortunate enough to possess this valuable jetsam. The twigs are also used as a medium of barter, a fragment of a colony, say, a branch seven or eight inches long, with its associated branchlets, having the exchange value of half a dozen pigs—the staple wealth of the island—or a wife.

In view of these interesting customs a few particulars regarding the Alcyonarian colony referred to are given. The specimen in the museum is a large and much-branched Gorgonid axis, intensely black in colour, with shiny surface marked by many fine grooves and ridges, and entirely devoid of flesh or spicules. By the characters of colour, branching, and general structure of the axis it is clearly a "black coral"—the "schwarze Horncoralle"—*Gorgonia* (now *Plexaura*) *antipathes* of Esper, or some closely related species. Such forms are widely distributed in Oceania, and are known to the natives by various names, frequently signifying "sea-wood," "sea-roots," "iron-wood," and such like. The present specimen is more than 2 ft. high, but examples 5 or 6 ft. high are on record. The colonies are most frequently cast ashore after storms, but they grow in five to six fathoms off Amboina, and belong to a typically shallow-water family.

It is natural that the large and thick stems of very old colonies used by East Indian peoples for the manufacture of ornaments should be considered of great value, but it is peculiar that the small twigs of an Alcyonarian widely distributed in Polynesia, an inhabitant of shallow water, and therefore likely to be often cast ashore, should be sufficiently rare in Santo to be a highly coveted medium of exchange.

JAMES RITCHIE.

The Royal Scottish Museum, Edinburgh, April 18.

Mechanically-formed Grikes in Sandstone.

THE grikes, or channels, frequently formed by the corrosive action of carbonic and organic acids upon the surfaces of exposed limestone beds are known to most geologists, but a case I recently met with, where similar surface-features have been naturally produced upon a sandstone ledge footing a part of the cliff at Orcombe Point, near Exmouth, is, I venture to think, a phase of marine erosion sufficiently unusual to merit a detailed description.

Here the Red Marls, with intercalated sandstones, rest on Permian (?) Sandstone. This, owing to its superior hardness, forms a ledge rising abruptly from the beach to a height of about 9 ft. This ledge of sandstone, which has a fairly level surface, is backed by a mass of a somewhat softer variety in the cliff, which, at its greatest distance, is about 20 ft. from the margin of the ledge.

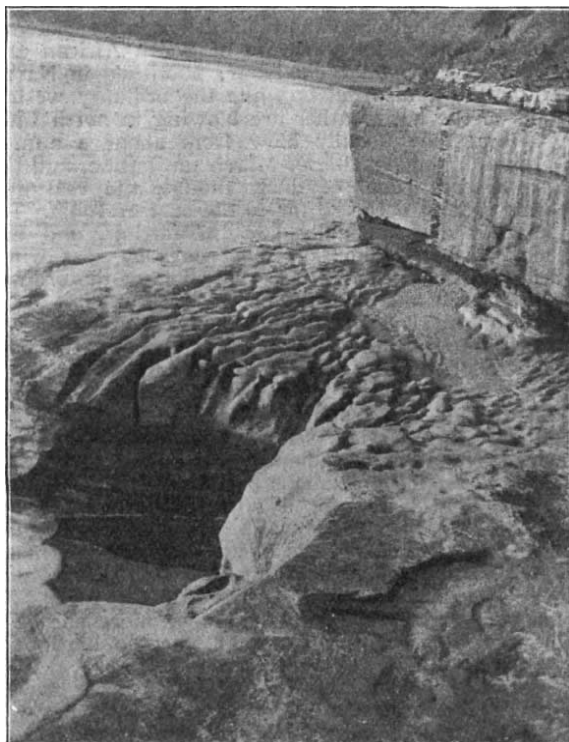
The surface of this ledge is grooved and channelled to a remarkable extent, and presents an appearance similar to that of limestone grikes. The longest channel has a length of between 15 and 16 feet, the deepest is 2 ft. 3 in. in depth, and the widest has a width of about 2 ft. at the top. In this widest channel is a ridge, about 1 ft. from the top, running along its centre, clearly representing an eroded parting which originally separated this widest channel into two parts. All the channels run seawards, and are deepest near the edge of the ledge. They are veritable cañons in miniature. A photograph taken from a point above the surface of the ledge is here reproduced.

These unusual features have been produced as follows:—During stormy weather the pebbles, grit,

and sand on the beach are cast upon the ledge by the waves. The advancing and receding water causes the beach material to move to and fro on the top of the ledge, and thus the pebbles and sand have literally sawn out these grooves, and the work of deepening and enlarging still goes on.

The position and direction of the channels was probably originally determined by slight "fossil" ripple-marks which existed on the surface of the rock.

The sandstone forming the ledge is a fairly hard,



Grikes in sandstone at Orcombe Point, near Exmouth (looking west).

red, ferruginous rock, composed chiefly of quartz grains, the larger being smooth and rounded, or sub-angular, and the smaller rough and angular. The beach material is chiefly made up of quartz, quartzite, vein-quartz, sandstone, flint, jasper, and shell fragments.

CECIL CARUS-WILSON.

April 21.

Gain of Definition obtained by Moving a Telescope.

THE phenomenon described by Mr. M. E. J. Gheury in NATURE of March 27, p. 86, is familiar to me in telescopic work.

Many years ago, when I used to sweep for comets, sometimes nebulae would be seen to enter the field which were so faint that when the telescope came to rest they were only just discernible or invisible altogether. By slowly swinging the telescope back and forth they would become readily visible, as if the process of motion had the effect of greatly multiplying their light. This was not an unusual occurrence. I remember also that it made quite a difference as to whether the object entered from the right or left side of the field. It was easier to detect a very faint nebula or comet when it entered from a certain side. I cannot now remember whether this was from the right or left (the sweeps being horizontal), but I know

I used to take advantage of the fact and sweep so that the stars should enter from the favourable direction.

E. E. BARNARD.

Verkes Observatory, Williams Bay, Wisconsin,
U.S.A., April 15.

A Brilliant Meteor on April 23.

A MAGNIFICENT meteor was seen here by me at 9h. 8m. this evening. Starting from near β Leonis, the body travelled, nearly overhead, to near η Draconis. The head was yellowish and distinctly pear-shaped, pouring out behind it a shimmering tail of reddish material. The flight occupied some 5 sec. or more, for I had time to direct the attention of the Misses Baxandall—with whom I was talking—to it, and they then saw quite half the flight. The matter left behind was quite bright, tapering off for some 3° , and then quickly fading away. There was no sound and no violent disruption. The meteor, in flight, reminded me strongly of the photographs of Borrelly's comet published by the Lick observers in 1903. A marked feature was the leisurely flight and the appearance of matter being poured out from the receding head.

WILLIAM E. ROLSTON.

"Broadwater," Fulbrooke Road, Cambridge,
April 23.

Spectacles for Use with Observing Instruments.

I DO not remember ever reading or seeing any article on how people who wear spectacles should look correctly through capped lenses of scientific instruments, such as telescopes, spectroscopes, microscopes, &c., nor what sort of spectacles weak-sighted people should use for that purpose, whether their long-sighted or reading spectacles, or whether special lenses should be obtained for that purpose. If the latter, a special form of lens cap might be made for the correct spectacle glass to fit into at the proper distance from the lens cap—when it is known what is the proper distance. At present this subject seems to be ignored, and it may be worth the attention of opticians to make rules and give hints or advice on the subject, so that people with deficient eyesight, especially the aged, may have more pleasure in their observations. Perhaps some of your readers may be able to give some useful hints as to what they find it best to do in the circumstances gained by many years of practical experience.

J. W. SCHOLES.

Grimscar, Huddersfield, April 21.

THE REPORT OF THE COMMISSION ON UNIVERSITY EDUCATION IN LONDON.

WHATEVER may be the ultimate result of the report of the Royal Commission on University Education in London, there can be no doubt that the Commissioners have performed, and performed admirably, a much-needed task. For success in any great enterprise it is essential that those who are engaged in it should have a clear mental vision of what they want. It need not be precise in detail, but it must be definite in outline.

The Commissioners have produced for the first time a faithful sketch of what the University of London may and should be. It is the conception of statesmen, and not merely of educationists interested chiefly in their own subjects, their own institutions or their own degrees. It is courageous, for the Commissioners do not hesitate to

express their opinions even when they know that they must be opposed to sectional views and sectional interests. It is far-sighted, for it is linked with impending reforms in secondary education, and contemplates changes which are admitted to be temporary and preparatory only to further developments, such as the establishment of a south-eastern university outside the London area. It faces for the first time the question of the cost of a great metropolitan university. Whatever other purpose it may serve, it will for long be regarded as a self-consistent and well-conceived scheme which will serve as a standard with which other proposals must be compared. Those who object may at least be expected to state their objections in a specific form; to indicate whether those objections are to some general principle or to particular details; to make it clear what alternatives they suggest, and whether those alternatives would directly or indirectly modify the whole scheme, and, if not, how they can be incorporated into it.

In discussing the report in these pages it may be assumed that the readers of NATURE are generally acquainted with the past history of the University of London, and know that the development of the internal University under the constitution established thirteen years ago has been very great, but has been hampered by disunion in the Senate. Nor was that constitution framed so as to enable the Senate to deal with the difficult problems caused by the establishment of so strong and efficient an institution as the Imperial College.

Indeed, the whole question was raised, not only as to whether a new technological university should be established in London, but whether the Imperial College should not be regarded as a super-university institution to which other universities should be expected to send their best technical students, and which should gradually eliminate all teaching of undergraduates from its curriculum. With both these proposals the Commissioners deal very faithfully. For their arguments we must refer our readers to the report itself (sections 194–198). Suffice it to say that they sum up in the statement "that the analogy of the German Hochschule fails to support the claim for a technological university in England, and that the policy of establishing a super-university is neither a possible one nor to be desired on its merits."

But while thus decisively deciding on the main questions, the Commissioners have done much, indeed, it may be said, all that is possible, to secure both to the technical colleges and to the teachers of technology in general that freedom in educational matters the securing or retention of which was the main motive of those who feared the too complete absorption of the Imperial College in the University. The safeguards provided are described below. Turning from this point, which was largely the cause of the appointment of the Commission, we come to what logically precedes it, namely, the constitution proposed by the Commissioners for the University. It is chiefly on this point that the arrangements under which it has been working since 1900 have broken down.